**Global Warming Scrapbook (IB Version)**

*6.1.1 Describe the role of greenhouse gases in maintaining mean global temperatures*

*6.1.2 Describe how human activities add to greenhouse gases.*

*3.3.1 Outline the range of energy resource available to society.*

*3.3.2 Evaluate the advantages and disadvantages of two contrasting energy sources.*

*6.1.3 Discuss qualitatively the potential effects of increased mean global temperature*

*6.1.4 Discuss the feedback mechanisms that would be associated with an increase in mean global temperature*

*6.1.5 Describe and evaluate pollution management strategies to address the issue of global warming*

*6.1.6 Outline the arguments surrounding global warming.*

*6.1.7 Evaluate contrasting human perceptions of the issue of global warming*

*7.1.3 Discuss how these philosophies influence the decision-making process with respect to environmental issues covered in the course*

You will have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to turn this completed project in. You will create a scrapbook (this should look like a scrapbook and NOT simply type written pages in a three ring binder). You must include a comprehensive page on each topic (main arrows) listed below. This project must be creative, neat, and it should be obvious that a considerable amount of time was spent on it. **EACH SECTION IS WORTH HALF A TEST GRADE, SO THIS PROJECT IS WORTH 2 TEST GRADES.**

**Section 1. Greenhouse Effect**

🡪Greenhouse Gasses (what they are, where do they come from, what percentage)

🡪Greenhouse Effect (explain this process using diagrams)

🡪How have greenhouse gasses (CO2 specifically) changed over geological time? Show and describe these using graphs.

**Section 2. Causes of Global Climate Change**

🡪Major Types of Fuel Types (pros and cons of each; you need to include: oil, natural gas, & coal)

🡪Major Types of Renewable Fuel Types (pros and cons tidal & wave energy, geothermal wind, solar energy, hydropower, algae/biofuel)

**🡪**Characterize each fuel type as renewable, replenishable, or non-renewable) and define each term.

**🡪**Describe how human activities add to greenhouse gases (discuss: water vapor, CO2, methane, and CFCs)

**Section 3. Effects of Global Climate Change**

🡪Discuss the feedback mechanisms (positive and negative feedback) that would be associated with global warming

🡪Discuss the potential effects of an increase global temperature

🡪biomes shifting

🡪Changes in weather

🡪Changes in productivity & thus areas for crop growing

🡪Sea Level Changes

🡪Changes in human health

🡪Global ice

**Section 4. Solutions to Climate Change**

🡪Describe and evaluate pollution management strategies to address global warming

🡪Global/International (include Kyoto Protocol, carbon taxing & carbon trading)

🡪Local (What is China doing to reduce greenhouse gas emissions & prevent global warming)

🡪Personal (How can YOU reduce your greenhouse gas emissions?)

🡪Summarize at least three contrasting views/arguments of global warming (as a starting place, you may wish think about political parties)

🡪For each of the above, characterize the viewpoint as one of the environmental worldviews.

🡪Explain the concept of Global Dimming

🡪Explain how various proxy Indicators has been used to develop climate models (ice cores, tree cores, ocean sediment, coral, pollen). Evaluate the climate models that are being used.

**Works Cited in MLA format & Internal Citations Throughout**